# Possible Airline Transmission of Severe Acute Respiratory Syndrome – Taiwan Experience

Sonja J. Olsen, Ph.D.[1], Hsiao-Ling Chang, Ph.D.[2], Tamara L. Fisk, M.D. [1,3], Hung-Wei Kuo, M.P.H.[2], Donald Dah-Shyang Jiang, Ph.D.[2], Kow-Tong Chen, M.D., M.P.H., Ph.D.[2], M.S., Jim Lando, M.D., M.P.H.[4], Kwo-Hsiung Hsu, M.S.[2], Tzay-Jinn Chen, M.D., M.P.H.[2], Scott F. Dowell, M.D., M.P.H.[1]

[1]International Emerging Infections Program, Centers for Disease Control and Prevention, Thailand; [2]Taiwan Center for Diseases Control, Department of Health, Taipei, Taiwan; [3]Emory University School of Medicine, Atlanta, Georgia; [4]National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia

**Background:** Severe Acute Respiratory Syndrome (SARS) has rapidly spread around the world, largely because persons infected with the SARS coronavirus have traveled on aircraft to distant sites. Although many infected persons have traveled on commercial aircraft, the risk, if any, of in-flight transmission is unknown. **Methods:** Passengers and crew on four planes that transported an index SARS patient(s) were contacted to ascertain illness. All patients met the WHO criteria for a probable case and persons on two of the flights were confirmed to be coronavirus positive by RT-PCR testing and/or serology. On 2 flights, the index passenger was asymptomatic (week before illness onset); on 2 flights the index passengers were symptomatic. **Results:** Passengers were interviewed at least 10 days after the flight. No illness was documented in passengers on the two flights carrying asymptomatic persons (0/75 and 0/33 of those interviewed). On the two flights carrying symptomatic persons, 4/19 and 1/166 persons interviewed reported illness. Forty three percent of persons seated within 3 rows in front of the index patient became ill, compared with 8% of persons seated elsewhere (relative risk=3.9; 95% confidence interval, 0.5-29.6). Review of exposures before and after the flight did not identify possible SARS exposure, and the illness onset times clustered around the expected incubation period. There were reports of up to 6 additional passengers and staff from Hong Kong, Beijing, and Singapore who may have also contracted SARS on this flight. **Conclusion:** Transmission of SARS on an aircraft may occur when SARS infected persons fly during the symptomatic phase. International recommendations for the protection of airline staff and passengers should be developed.

*To be presented at the 41st Annual Meeting of the Infectious Diseases Society of America, October 9-12, 2003, San Diego, California (abstract #1041)*